

# Bruce (Shidi) Xi

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## Education

### The University of British Columbia

Vancouver, BC

*Master of Engineering in Electrical and Computer Engineering*

2021–2024

- Research project: Multi-agent Deep Reinforcement Learning for VLSI Routing
- Relevant courses: Deep Learning, Computer Architecture, CNN Hardware Accelerator

### Imperial College London

London, UK

*Bachelor of Engineering in Material Science and Engineering*

2018–2021

- Graduated with First-Class Honours
- Obtained Dean's List for three consecutive years (2018-2021)

## Projects

### Multi-agent Deep Reinforcement Learning for VLSI Routing

May-Oct. 2023

- Independently mastered DRL and VLSI global routing through extensive self-study and literature review
- Successfully modelled and implemented the physical routing problem in Python
- Innovatively designed a multi-agent DRL model to solve the routing problem using sophisticated Python toolkit

### Embedded System Design

Jan.-Apr. 2023

- Designed several components of an embedded system including a 4-way set-associative cache controller and a DRAM controller using Verilog
- Implemented the system on an FPGA with a provided soft microcontroller
- Wrote software and firmware in C that interacted with hardware using SPI, IIC, and CAN protocol
- Utilized hardware timer interrupt and designed a snake game software that run on the embedded system

## Experience

### Motorola Solutions

Vancouver, BC

*Design Validation Co-op*

May-Dec. 2022

General description no longer than 1–2 lines.

Detailed achievements:

- Achievement 1;
- Achievement 2, with sub-achievements:
  - Sub-achievement (a);
  - Sub-achievement (b), with sub-sub-achievements (don't do this!);
    - Sub-sub-achievement i;
    - Sub-sub-achievement ii;
    - Sub-sub-achievement iii;
  - Sub-achievement (c);
- Achievement 3.